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Assessing career indecision : a guide for practitioners

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Abstract

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Introduction

Researchers first began classifying people as career-decided or career-undecided nearly 100 years ago (Parson, 1909). The concept of career indecision began to become a serious issue once people started having choices and could make decisions regarding their career options. Despite widespread presence on college campuses, career counselors had no standardized method to assess this indecision until very recently.

Vocational psychologists began researching career indecision in the 1960s. Slaney (1988) suggests two incentives behind the development of career indecision measures. The first was that there was a need to clarify what undecided meant. Understanding the difference between decided and undecided was not enough; it was necessary to specify the components and subcategories that make up indecision. The second impetus to develop assessments was that if it were possible to identify which components were causing the indecision, proper career interventions could be used to alleviate the indecision.

Since the late 1970s several assessments have been created. The growth in information and assessment surrounding indecision has the potential to be helpful to practitioners. The challenge for practitioners is that this relatively recent proliferation makes it difficult to keep up with all of the instruments and to understand which of them might be most beneficial in any particular setting.

The purpose of this paper is to analyze seven of these assessments as an aid for practitioners who deal with undecided students. To that end, the history, reliability and validity, scoring, length of time to take, criticisms of and current research on the following assessments: My Vocational Situation, Career Decision Scale, Career Decision

Profile, Career Decision Making Self Efficacy Scale, Career Factors Inventory, Career Beliefs Inventory, and Career Thoughts Inventory.

My Vocational Situation

The origins of the My Vocational Situation (MVS) trace back to research done by Holland and Holland (1977) that was conducted to examine the correlates of career indecision. From that research, a 13 item scale was developed, and was referred to as the Vocational Decision-Making Difficulty Scale VDMD (Holland, Gottfredson, & Power, 1980). About that same time, The Identity Scale (ID) developed by Holland, Gottfredson, and Nafziger, (1975) was found to be substantially, but negatively correlated to the VDMD. Items from both of those scales contributed to the current content of the MVS (Holland, Daiger, & Power, 1980). The MVS was developed to provide a diagnostic scheme for vocational decision-making. Using this scheme, career counselors could assist clients in selecting and following a proper treatment plan.

The current instrument consists of 26 true-false items measuring three dimensions of career development. The Vocational Identity (VI) section consists of 18 items dealing with the concepts of goals, interests, personality, and talents. The Occupational Information Scale (OI) contains four items addressing the need for career information. The third scale, Barriers, contains four items related to perceived external obstacles. Slaney (1988) reports that the item is self-administered, can be hand scored, and can be filled out by most people in 10 minutes or less.

Research done by Holland, Gottfredson and Power (1980) showed that for samples of high school students, college students, and workers, the VI scale reliability ranged between .86 and .89. That same study showed the reliability scores for the OI

and B scales were much lower (.39 and .23). Retest reliability was estimated to be .75 for intervals of 1 to 3 months (Holland, Johnston, & Asama, 1993).

Lucas, Gysbers, Buescher, and Heppner (1989) conducted a study using the MVS with two goals in mind. First, they wanted to add to the normative and psychometric data concerning the MVS. Second, they wanted to examine the relationships between VI and sex, age, and GPA. They found retest reliability to be .64 for the VI scale after 3-5 months. They also found that for a sample of entering university freshmen, the VI scores followed a normal distribution, but the OI scores were positively skewed and the B scores negatively skewed. Their research found no significant relationships between Vocational Identity and age, sex or GPA.

Another study was conducted using the MVS on entering freshmen. Mauer and Gysbers (1990) analyzed the VI scale using a cluster technique. They found that Vocational Identity was made of 5 different clusters, anxiety, confidence, self-assessment, occupational information and one independent item. They argue that using the VI scale overall in counseling is not as helpful as using the scales to identify which part of vocational identity is lacking.

Construct validity of the MVS was addressed in research by Leong and Morris (1989). They found that Vocational Identity was negatively related to social anxiety and intolerance of ambiguity. They also found a strong correlation between Vocational identity and career maturity.

Much research has been conducted on the MVS and using the MVS. The VI scale seems to have strong support for its reliability and validity. The OI and B scales on the

other hand do not seem to be as sound. In order for practitioners to be able to use these scales as more than checklists, more work would need to be done on them.

Career Decision Scale

About the same time of the development of the MVS, Osipow, Carney, Winer, Yanico, and Koeschier (1976) were working on an early version of the Career Decision Scale. It was revised in 1980 and again in 1987. The most recent version of the CDS (Osipow, Carney, Winter & Koschier, 1987) and the user's manual (Osipow, 1987) are published by Psychological Assessment Resources, Inc. The authors of the CDS believe that there are a "finite number of relatively discrete problems" (Osipow, 1987, p. 4) that keep people from making career decisions. The CDS was designed to identify these sources of indecision so that counselors could assist clients to overcome these problems. With time, the instrument has been used not only to identify the problems, but also to evaluate the effectiveness of career interventions.

The most current version of the CDS contains 19 items. The first two questions address decidedness about career and academic major and make up the certainty scale. The indecision scale consists of questions 3-18 and assesses the reasons for indecision. The last item is an opportunity to clarify or elaborate on the first 18 items. Test time is estimated at 10-15 minutes, and the counselor can complete scoring in 5 minutes.

The CDS was designed for use with high school and college students, and has also been successfully used with non-traditional female college students, graduate students, and medical students (Slaney, 1988). Hartung (1995) considers the CDS to be a first-generation measure since the indecision scale yields a total indecision score. The authors originally attempted to break down the scale into lack of structure and

confidence, external barriers, approach problems, and personal conflict. Despite the identification of these factors, the research has not been conclusive in support of using them.

Research has shown the CDS to be a reliable tool with test-retest reliabilities from .70 to .90 . (Slaney, Palko-Nonemaker, & Alexander, 1981) and (Osipow, Carney, & Barak, 1976). The instrument has been used widely in counseling, research, and evaluation. In fact, the CDS is the most commonly used instrument to measure indecision. Despite its wide use in measuring indecision, the research has shown that the assessment measures indecision, but does not satisfactorily measure the components of that concept. For this reason, its use would be limited in an individual counseling setting.

Career Decision Profile

The Career Decision Profile (CDP) is an instrument similar to the Career Decision Scale. Jones (1989) states that the goal for creating the CDP was an assessment with "satisfactory reliability and validity, have greater potential for differentiating subgroups among the career undecided, be self-scoring, and have wording appropriate for use with non-college populations" (p. 477). This new version introduced the CDP, (Jones, 1988) and is still the most current version. The author of the CDP states that the profile was designed to be used in four ways: exploring clients' career indecision, screening for career counseling readiness, determining the appropriate level of services, and evaluating outcomes (Jones & Lohmann, 1998). Practitioners interested in using the CDP can obtain samples from the author.

One distinct characteristic of the CDP is that it does not assume that those who are decided are comfortable, or that those who are undecided are uncomfortable. The

inventory measures decidedness, comfort, and reasons and consists of six scales and a total of 16 items. Each item is measured with an 8 point Likert scale where 1 equals strongly disagree and 8 equals strongly agree. The decidedness scale (2 items) measures how decided an individual is in terms of choosing an occupation. The comfort scale (2 items) measures how comfortable the individual feels about that choice. The self-clarity scale (3 items) measures the individual's understanding of their interests, abilities, and personality and how that fits into different careers. The knowledge about occupations and training scale (3 items) measure how much the individual believes he or she knows about occupations and training programs that will match with current interests and abilities. The decisiveness scale (3 items) assesses how able the respondent feels about making decisions without difficulty, delay, or reliance on others. The career choice importance scale (3 items) measures how important it is for the individual to choose and work in a career at this time. Once the profile is complete, the respondent self-scores the results.

Generally, the CDP has reliability ranging from .66 to .80 (Jones, 1989). Research has also confirmed the validity of the scales (Heppner & Hendricks, 1995; DeBruin & DuToit, 1997; Murry, 1989). Jones also found several relationships between the scales and other measures. Self-clarity was significantly related to trait anxiety and identity achievement status. Knowledge about occupations and training was not related to anxiety or identity, but was related to career salience. He also found that decisiveness was negatively correlated with trait anxiety, and career choice importance was related to career salience.

Though the CDP has been in use for over 10 years, there is very little research on the instrument. Not only is research on the instrument scarce, the use of the instrument is not common either. Several reasons could be cited for these phenomena. First, there is not a manual for the use of the CDP. Researchers are not able to easily find information on the instrument. Another limitation is that the instrument is not distributed through the common assessment publishers. A lack of promotional material on the instrument may be another factor in its limited use. A third restricting factor is that the CDP is written for and has been tested solely on college populations. It would be difficult for practitioners to assume that the instrument would be valid or useful with other populations, such as high school students or adults.

Career Decision-Making Self-Efficacy Scale

It has been hypothesized that people suffering from low self efficacy would tend to avoid tasks needed for making career decisions (Taylor & Betz, 1983a). Stemming from that hypothesis, Taylor and Betz developed the Career Decision-Making Self-Efficacy Scale (1983b). The CDMSES is designed to measure how certain an individual is that he or she can complete the necessary tasks to make vocational decisions. The scale is available for purchase through the author.

The scale consists of 50 items and is self-scoring. Respondents are asked to rate their confidence in their ability to perform certain tasks. Respondents can select from 0 (no confidence) to 9 (complete confidence). These 50 items were developed using Crites' (1961) five career choice competencies: accurate self-appraisal, gathering occupational information, goal selection, making plans for the future, and problem solving. Ten items were selected for each area.

Several studies have been conducted on the design and use of the CDMSES. In 1985, Robbins studied the relationships between CDMSES scores, and scores on measures of self-esteem, trait anxiety, vocational identity, and career indecisiveness. Robbins found moderate relationships with CDMSES scores and each of those constructs.

Taylor and Popma (1990) studied the relationships among CDMSE, career salience, occupational self-efficacy, vocational indecision, and locus of control. This investigation confirmed that a significant negative relationship exists between career decision-making self-efficacy and indecision, and with external locus of control. In that same research, a positive relationship was found between career decision-making self-efficacy and vocational decidedness, and occupational self-efficacy. No relationship was found between career salience and career decision-making self-efficacy.

A thorough psychometric evaluation was completed by Luzzo (1993). This was the first research to include test-retest measures, and reliability was found to be .83 after a 1 ½ month interval. This study found a positive relationship between age and CDMSES, and between CDMSES and career decision-making attitudes, but interestingly enough, not to career decision making skills.

In response to limited information surrounding ethnic/racial issues, Gloria and Hird (1999) examined the differences in CDMSE, trait anxiety, and ethnic identity. Their investigation found that White students had lower trait anxiety, other –group orientation, ethnic identity, and higher CDMSE. Declared students were found to have lower trait anxiety and CDMSE. Ethnic identity and other-group orientation were more significantly related to CDMSE and trait anxiety for non-Whites than for Whites.

Several criticisms can be made against the CDMSES. First, all of the reliability and validity studies up to date have involved exclusively college students (Luzzo, 1996). Another criticism is that the use of the subscales is questionable since there is "considerable overlap" between them (Robbins, 1985). Finally, the limited amount of research using the instrument is also reason to reserve judgement.

Career Factors Inventory

Two years after the creation of the CDMSES, the first version of the Career Factors Inventory (CFI) was developed by Robbins, Morrill, and Boggs (1987). A review of the literature by the authors showed that there were five salient career indecision factors. Both informational and personal-emotional dimensions were identified and broken down as self-esteem, career choice anxiety, generalized indecisiveness, need for career information, and need for self-knowledge. The initial inventory consisted of 31 items on each of the five factors. The authors deemed the first inventory to be very good, but were compelled to create an instrument where each item loaded on only one factor.

This revision yielded a four factor, 21 item which is the most current form of the inventory (Chartrand, Robbins, Morrill, & Boggs, 1990a). The new version measures four scales: career choice anxiety, generalized indecisiveness, the need for career information and need for self-knowledge. The inventory is self-scored and with only 21 items should not take most respondents much time to complete. The authors suggest that this inventory is well suited for use with individual clients in order to identify which of the four scales is interfering with career decision-making.

Test-retest scores ranged from .79 to .84 and significant correlations were found between CFI scale scores and measures of anxiety, goal instability, vocational identify, and self-esteem (Chartrand, Robbins, Morrill, & Boggs, 1990b). Stead and Watson (1993) studied the scales of the CFI compared to the CDS and CDP and found that indecisiveness and the need for self/career information were being measured by both the CDP and the CFI, while the CFI was the only instrument to measure career choice anxiety.

A study done by Cohen, Chartrand, and Jowdy (1995) also offers validity information. Based on a review of literature of CFI scores, they identified four cluster groups of career undecided students. They call the first group Ready to Decide. These students have low anxiety, high self-esteem, and a good vocational identity. The second group, Developmentally Undecided, is emotionally stable, but does not have a clear picture of themselves or the work world. The third group, Choice Anxious, has high choice anxiety, little need for career information, and low vocational identity. Chronically Indecisive, the last group, is characterized by low vocational identity, high need for self and career information, low goal directedness, and low self esteem. Using these clusters, they examined the relationship between ego development and career decision group. They found that people who were more successful in ego identity development were also less likely to experience career decision-making difficulties.

Because of its relatively recent entrance into the career indecision assessment arena, there is little research on the instrument. Much more research is needed on the instrument in order to be sure that it is psychometrically sound.

Career Beliefs Inventory

The Career Beliefs Inventory (CBI) stems from research that found that vocational misconceptions and myths create barriers that block people from achieving their career goals. The assessment is designed to help people identify assumptions and beliefs that may limit their ability to take constructive action. Through 8 years of research, Krumbholz (1991a) collected mistaken beliefs that clients felt had influenced their decisions. This research led to the development of a 96 item inventory measuring 25 scales: employment status, career plans, acceptance of uncertainly, openness, achievement, college education, intrinsic satisfaction, peer equality, structured work environment, control, responsibility, approval of others, self-other comparisons, occupation/college variation, career path flexibility, post-training transition, job experimentation, relocation, improving self, persisting while uncertain, taking risks, learning job skills, negotiating/searching, overcoming obstacles, and working hard (Krumbholz, 1991b). Each scale has between two and eight questions.

From the 25 scales, the authors found 5 logical headings. They are: My current career situation, What seems necessary for my happiness, Factors that influence my decisions, Change I am willing to make, and Effort I am willing to initiate. Respondents are asked to choose from Likert scale responses from 1 (strongly disagree) to 5 (strongly agree). Some of the items are reverse scored in order to avoid the responder tendency to answer down a straight line.

Test materials are straightforward and include a test booklet and an answer sheet. Respondents should be able to complete the instrument in about 25 minutes. The test can be computer scored or hand scored with a key. Dolenz (1993) argues that the hand

scoring directions are not very clear but that an unpracticed scoring required 7 minutes. The CBI is written at an eighth grade reading level, and has been used over 7,500 times in the United States and Australia ranging in age from 12 to 75. Norms from that data are available for groups ranging from employed adults to junior high school students.

Initial test-retest reliabilities with college samples range from .27 to .68 to over a three-month period where students were enrolled in a career planning course. With high school students stability over a 1 month period ranged form .74 to .35. (Krumbholz, 1994). Initial validity studies were conducted by Krumbholz for the CBI manual (1991). Concurrent validity was shown through correlation of CBI scores and occupational and school satisfaction. Persisting while uncertain, working hard, and overcoming obstacles were all found to be positively related to CBI scores. Aside from the CBI, no other assessment measures career beliefs. Krumbholz reports in the manual that the CBI is measuring different constructs than the Strong Interest Inventory, the Myers-Briggs Type Indicator, and the FIRO-B. While it appears that career beliefs are separate from vocational interests, sociability, and personality type, a study by Carnell (1989) found that a relationship between lower anxiety and career beliefs. He found that significant relationships between state and trait anxiety associated with four of the CBI scales: seeing several routes to one's goals, willingness to consider jobs one was not trained to do, working hard in the face of failure, and believing that hard work will bring success.

Career Thoughts Inventory

A concept very related to career beliefs is that of dysfunctional career thoughts. The Career Thoughts Inventory (CTI) (Sampson, Peterson, Lenz, Reardon, & Saunders,

1996a) developed based on the Cognitive Information Processing (CIP) theory (Peterson, Sampson, Reardon, & Lenz, 1996). CIP theory maintains that career problem solving and decision-making requires processing of information in the domains of occupational knowledge, self knowledge, communication, analysis, synthesis, valuing, execution and executive processing. Identifying these faulty cognitions and replacing them with more useful thoughts is the purpose of the CTI.

Three scales comprise the CTI; decision making confusion (DMC), Commitment anxiety (CA), and external conflict (EC). The instrument was developed by selecting 248 initial items from the eight CIP content dimensions based on client statements collected by the authors. A six-member panel and several administrations of the assessment with undergraduate students led to the current 48-item version. The authors developed the instrument to be quickly administered, rapidly scored, easily interpreted, and easily integrated into counseling homework (Sampson, Peterson, Lenz, Reardon, & Saunders, 1998, p132.) The assessment was designed for use with high school, college and adult populations, and was found to have a 6.4 grade reading level (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b).

Most clients can complete the CTI in less than 15 minutes and the inventory can be hand scored in under 10 minutes. The booklet contains the inventory, the answer form and the profile form. The profile form provides norms for adults, college students and high school students. The assessment was designed to be used in conjunction with the 36 page CTI workbook (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996c). The workbook could be used independently, or with a career counselor, and is designed to provide cognitive restructuring to the user.

The authors of the inventory state that through a test using college and high school students, 4-week test-retest reliability was found to be high for the college and the high school students with scores of .86 and .69 respectively. The authors believe that the instrument is sufficiently content valid based on the fact that the items on the inventory came from client concerns. Factorial validity was found through a series of factor analyses and is reported in the manual. Evidence for the use of the three concept scales, decision-making confusion, commitment anxiety, and external conflict were replicated in several different samples using adults, college students and high school students. In fact, total CTI scores are highly correlated with decision making confusion for all groups, suggesting that a tendency toward dysfunctional thinking influences all other aspects of career thinking. Convergent validity evidence was found by identifying consistent correlation with the My Vocational Situation, the Career Decision Scale, and the Career Decision Profile.

Because of the relative newness of this instrument, only one research study was found using the CTI. A study was conducted to see if any correlation exists between the Self-Directed Search and the CTI (Wright, Reardon, Peterson, & Osborn, 2000). They found that clients with high Realistic scores had high DMC scores and low CA scores. Clients with Enterprising scores had low DMC scores, but high CA scores. The authors suggest that because of such a low number of clients scoring high on Realistic, that the results may not be generalizable. They also suggest that the predominant liberal arts orientation from which the sample was drawn may be causing more difficulty for the Realistic types who would be less likely to find an appropriate outlet for those interests.

The CTI seems to be a very promising instrument though much more research needs to be done. The introduction of a workbook to assist the individual in correcting the negative thoughts would be helpful not only to the counselor, but to the client as well.

Conclusion

Assisting clients with career indecision has become much simpler with the creation of such a wide variety of assessments. The seven instruments covered in this paper all could be useful working with college students in a career services environment. The drawback of all of this research is that practitioners are now faced with the decision of which instrument to use. Understanding that resources are limited in most offices, it is up to the practitioner to decide which instrument best suits their particular needs.

Certain assessments appear to be better suited to certain uses. The My Vocational Situation has been used as a general survey for a class of incoming freshmen to determine their career development needs. The Career Decision Scale seems to be well suited for that purpose as well. Since the scales of those assessments have not proven to be reliable, it would be possible to gain general survey information using those assessments. I would argue that the Career Decision Profile could also be used for that purpose. The fact that the CDP measures comfort with decision status and career choice important could be very helpful in understanding the needs of a particular group of students. The three assessments range from 16 to 26 items, making them brief enough to be completed in a survey.

Due to the increased sophistication of the Career Decision Making Self-Efficacy Scale and the Career Factors Inventory, those instruments would be much better suited to use with individuals and small groups. With 50 and 21 items respectively, these

instruments are a bit more in depth. The scales of these assessments also have enough research to be deemed valid and reliable. Using these assessments with students who are unclear about their future would benefit the counselor and make the most use of the limited visits available to the student. From the results provided by each of these assessments, the appropriate plan of action could be taken.

The Career Beliefs Inventory and the Career Thoughts Inventory seem to be more than necessary for the students who are unclear about their future. These inventories seem better suited to the student who has tried several internships or work experiences and is still undecided. The Career Beliefs Inventory contains 96 items, making it better suited to someone who is more undecided than the typical undergraduate student. The Career Thought Inventory is an interesting instrument, given the fact that a workbook is also available. For the student who is very undecided and motivated to work towards eliminating that indecision, the combination of those items seems promising.

Using assessments to aid students in the career development process can be helpful and time saving. Most college students are undecided to some extent, and now there are a wide enough array of assessments to help them all. Ideally, this research will make it easier for practitioners to select the assessment appropriate for their needs.

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